

VAIDS-DSML exercise block 8

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decision tree classification

- problem

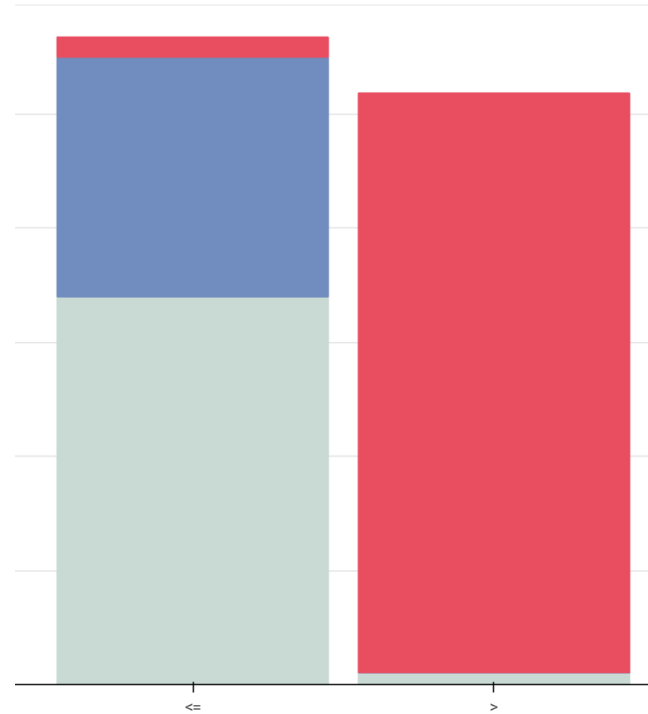
- 310 samples of vertebral columns
- 6 features
- 1 target:
 - Disk Hernia
 - Spondylolisthesis
 - Normal
- we need to know, which feature value creates the most significant decision tree with depth 1 (stump)

- solution

- for each feature sort the samples by that feature
- for each value, split the samples into \leq and $>$ than that value
- calculate the information gain for each split
- the split with the highest information gain creates the best stump

decision tree classification

- feature:
 - degree_spondylolisthesis
- value:
 - 15.78000
- information gain:
 - 0.83380



decision tree classification

SPONDYLOLISTHESIS

